Hart Creosoting Company Jasper, Jasper County, Texas

EPA REGION 6 U.S. CONGRESSIONAL DISTRICT

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EPA ID# TXD050299577 Site ID: 0601975

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Background

The Hart Creosoting site is a former wood treatment facility located one mile south of the City of Jasper, in Jasper County, Texas. The site is on the western side of State Highway 96, approximately 1 mile south of U. S. Highway 190. The site location coordinates are latitude 30° 53' 38" N, longitude 93° 59' 41" W.

Hart Creosoting is a former wood treatment facility, which performed wood treatment, pole peeling, and pipe threading operations utilizing coal-tar creosote. The site occupies an approximate 12 acres. The site is located approximately one mile south of downtown Jasper in an industrial/commercial and wooded area. There are forest lands to the south, west and north, and an operating automotive detailing business east of the site. An intermittent, unnamed creek is located along the western border of the site. The unnamed creek discharges into Big Walnut Run Creek approximately 1½ mile south of the site. Big Walnut Run Creek ultimately discharges into the Neches River, approximately 24 miles downstream from its confluence with the unnamed creek.

The site is located on the outcrop of the Jasper Aquifer, a continuous 1,200-foot deep aquifer that serves as the primary source of drinking water for the Upper Jasper County Water Authority. Two public and 39 private wells are located within 4 miles of the site. The private wells are used for drinking water and irrigation purposes. The nearest off-site private water wells are approximately 0.5 and 1 mile south of the site. Each of these wells serves two people. The two public water supply wells, used as sources of drinking water, serve approximately 12,000 users and are located approximately 3 miles north of the site at depths of 764 and 802 feet BGL.

The approximate population of the City of Jasper is 8,247 people. Approximately 1,000 people live within a one-mile radius of the site.

Photos: <u>Site Pictures 2008</u>

Current Status

The site is in the Long-Term Remedial Action (LTRA) phase of the Superfund process. The EPA signed the Preliminary Close-Out Report on September 12, 2008, documenting the Construction Completion at the site. The EPA and State of Texas completed the Final Inspection at the site on September 10, 2008.

The EPA held a public meeting August 15, 2006, at the City of Jasper First National Bank in Jasper to present the Proposed Plan, to answer questions on the remedial alternatives and to present the EPA's preferred alternative for addressing cleanup of the site. The RI/FS reports and Proposed Plan for the site were made available to the public on July 26, 2006. The documents are in the Administrative Record file and the information repository maintained at the EPA Docket Room in Region 6, at the TCEQ offices in Austin, Texas, and at the Jasper City Library. The notice of the availability of these documents was published in the <u>Jasper Newsboy</u> on July 26, 2006. The Record of Decision (ROD) was signed on September 21, 2006.

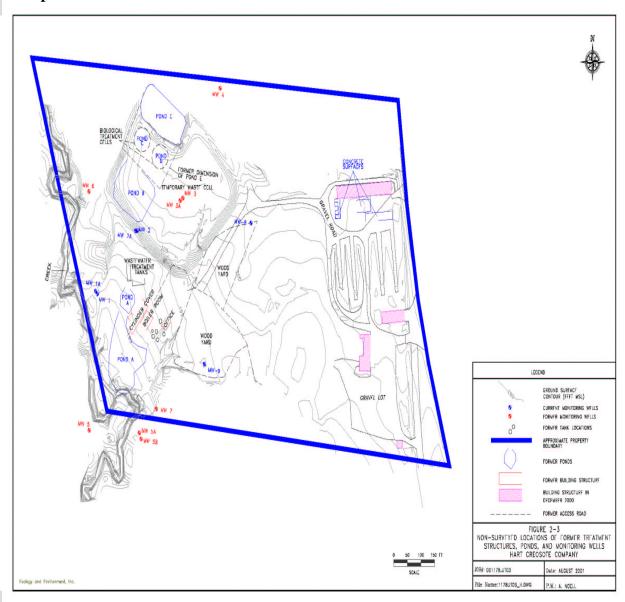
Benefits

The clean-up of the contamination present at the Hart Creosoting Company Superfund site ensures the protection of human health and the environment and will encourage reuse of the property.

National Priorities Listing (NPL) History

NPL Proposal Date: April 23, 1999 NPL Final Date: July 22, 1999

Site Map -



Wastes and Volumes

Historic operations performed at the site employed coal tar creosote dissolved in diesel to treat railroad ties and utility poles. Coal tar creosote, a listed hazardous waste (U051), is manufactured through the distillation of coal tar and is the most widely used wood preservative in the United States. It is a thick, oily liquid, typically amber to black in color, with a specific gravity of 1.03 to 1.09. Creosote contains over 300 different chemical compounds. One important group of environmentally significant compounds present in creosote is the PAHs. There are 16 PAHs routinely encountered at wood treating sites, seven of which have been identified as probable human carcinogenic polycyclic aromatic hydrocarbons (CPAHs).

The primary source of onsite subsurface contamination was found in the location of the former wood treating area and the former Pond A. Elevated levels of PAHs were identified in soil borings adjacent to the creek. To further define the extent of residual creosote underlying former Pond A, the RI advanced five soil borings to depths up to 65 feet with samples collected at 10 foot intervals. TPAH concentrations ranged from 3.9 mg/Kg to 17,740 mg/Kg with the highest concentrations generally occurring at depths less than 20 feet. However, increasing TPAH concentrations observed at a depth of 72 feet (58,635 mg/Kg) and 60 feet (7,384 mg/Kg) suggest there is potential for pooled creosote.

The ground water hydro-geologic investigation included sampling of six existing monitor wells and ten new monitor wells constructed during the RI, and sampling of 17 existing monitoring wells and 4 new monitor wells installed during the SRI. Free phase creosote was observed during the SRI sampling events in one well with a thickness of approximately 1.5 feet. Total PAH concentrations detected in shallow ground water varied from 0.17 μ g/L to 9.11 μ g/L with the highest concentration observed near the Site of former Pond A.

At the two furthest down-gradient wells, TPAH concentrations of up to 25,500 μ g/L and TPAH concentrations of up to 9,516 μ g/L were detected. These levels are indicative of a large dissolved phase plume. Accordingly, two of the four new SRI monitor wells were installed approximately 700 feet down-gradient of the Site property line. Sampling of these wells in 2006 detected TPAH concentrations of up to 10,276 μ g/L.

Naphthalene accounts for a majority of the TPAH concentration at wells MW-11A/11B, MW-12A/12B, MW-13A/13B, MW-14A/14B and CMT well MW18. This condition is consistent with the makeup of creosote-based wood treating solutions where naphthalene typically accounts for 7 to 9-percent of the total fraction. Naphthalene also has a higher aqueous solubility than many PAH compounds which allows for greater environmental mobility. The distribution of TPAH indicates that the contaminant plume has migrated beyond the down-gradient margins of the current monitor well network. To estimate the potential extent of the dissolved-phase plume, a one-layer ground water flow and contaminant naphthalene transport model was constructed. The model simulations indicate that naphthalene concentrations greater than the EPA Region 6 MSSL of $6.2~\mu g/L$, could extend up to 1700 feet beyond the southern property line. The ground water velocity at the site is estimated to be 52 feet per year.

Health Considerations -

PAHs present the primary threat to public health and welfare from the site. Other constituents of coal tar creosote, including 1,1'-biphenyl, carbazole, and dibenzofuran were also identified at the site. Available literature reveals that numerous PAHs and carbazole are possible carcinogens. Reports on long term human exposure to PAHs in mixtures with other compounds through inhalation and dermal exposure have resulted in cancer. PAHs have caused tumors in laboratory animals through inhalation, oral, and dermal exposures. In addition, animal studies have revealed that developmental, reproductive, and immunosuppressant health effects have occurred with exposure to PAHs through the various exposure routes.

Record of Decision (ROD)

The ROD was signed on September 21, 2006.

Major components of the selected remedy include:

Excavate soil and sediment containing chemicals of concern (COCs) at concentrations exceeding the preliminary remediation goals (PRGs) and disposing the excavated soil and sediment into an onsite RCRA containment cell to be constructed onsite.

Install a non-aqueous phase liquid (NAPL) recovery system to remove free phase and residual NAPL from the saturated zone to the extent practicable.

Site Contacts —

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EPA Superfund Region 6 Toll Free Number: 1-800-533-3508

Community Relations Plan: January 2000

Site Repository: Jasper Public Library

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